disturbance, there is no difficulty in farming Rheas as well as Ostriches.

For further details we must, however, refer our readers to the work itself, every page of which is replete with interest, as well as really novel and valuable information.

*On the Foraminifera of Barbadoes.* (*Étude sur les Foraminifères de la Barbade, &c.*) By M. Ernest Vanden Broeck, &c. 8vo. 98 pages, with 2 plates. Brussels, 1876. (From the 'Annales de la Soc. Belge de Microscopie.')

This memoir on some recent Foraminifera collected by the late L. Agassiz at about 100 fathoms depth, near Barbadoes, in the West Indies, is of considerable interest on account of the careful treatment of the Microzoa under notice, the elegant and trustworthy illustrations, and the enlightened views of Foraminiferal classification and nomenclature which the author clearly and earnestly advances.

The series of forms is not numerous, but very interesting as varieties and subvarieties of well-known types; and these serve as a groundwork for a thoughtful exposition of the principles of classification adopted by Von Reuss in Germany and by Carpenter and others in England. The Foraminifera described and figured are:—

Lituola Soldani, *P. & J.*, var. intermedia, *nov.*
Dentalina obliqua, *L.*, var. sulcata, *Nils.*
D. nodosa, *D'Orb.*
D. communis, *D'Orb.*
D. communis, *D'Orb.*, var. obliqua, *D'Orb.*
D. communis, *D'Orb.*, var. annulata, *Rss.*
D. pauperata, *D'Orb.*
Marginulina glabra, *D'Orb.*
Cristellaria rotulata, *Lm.* (passing into C. vortex, *F. & M.*).
C. cultrata (*M.*).
Frondicularia alata, *D'Orb.*, var. sagittula, *nov.*
Frondicularia alata, *D'Orb.*, var. lanceolata, *nov.*
F. complanata, *Defr.*, var. concinna, *nov.*
Globigerina bulloides, *D'Orb.*, var. cretacea, *D'Orb.*
G. bulloides, *D'Orb.*, var. rubra, *D'Orb.*
Textularia trochus, *D'Orb.*
Verneuilina communis (*D'Orb.*).
Pulvinulina Menardii (*D'Orb.*), var. cultrata (*D'Orb.*).
Polymorphina lactea (*W. & J.*) and Truncatulina lobatula (*W. & J.*) are also described and commented upon.

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## PROCEEDINGS OF LEARNED SOCIETIES.

### GEOLOGICAL SOCIETY.

June 7th, 1876.—Prof. P. Martin Duncan, M.B., F.R.S., President, in the Chair.

"On the British Fossil Cretaceous Birds." By Harry Govier Seeley, Esq., F.L.S., F.G.S., Professor of Physical Geography in Bedford College, London.

In this paper the author gave an account of the remains of birds which have been collected from the Cambridge Upper Greensand.

Of the head, the only portion yet recognized is the part of the brain-case behind the parieto-frontal suture. It indicates a skull as large as that of the red-throated Diver, which it resembles in details of structure. The vertebral column is represented by lower cervical vertebræ, which have the centrum small and compressed from side to side. The dorsal vertebræ are also small, are rounded on the underside as in the Gannet, and often have the articular ends biconcave, or have a concavity in the centre of the saddle. There were transverse processes as in modern birds; and the ribs had a similar double articulation. The sacrum was unusually large, and included many vertebræ. Its anterior end resembles that of a Gull's sacrum, in being flattened or concave. The vertebræ are rounded anteriorly, and distinguishable from each other; but posteriorly they are blended, and resemble the postarticular part of the sacrum of the Diver. Some small vertebræ were thought to be caudal, and considered to be probably elements of the ploughshare.

No trace of any bone of the anterior limb has been detected; while of the hinder limb, the femur, tibia, fibula, and tarso-metatarsus are all known. The femur and tarso-metatarsus are the bones most like those of the Diver. The fibula is unusually large. The tibia has a moderate patelloid process, and shows resemblances to several water birds. The bones are so fragmentary that the size of the animal can only be given roughly as similar to that of the Diver, but with a shorter neck. The affinities of the animal are strongest with *Colymbus*. It also closely resembles Prof. Marsh's Cretaceous genus *Hesperornis*, and, like that genus, may be supposed to have had teeth. The species were described as *Enaliornis Barretti* and *E. Sedgwicki*. Some bones were also described thought to indicate birds in which the extremities of the bones remained unossified throughout life.

"On two Chimæroid Jaws from the Lower Greensand of New Zealand." By E. T. Newton, Esq., F.G.S., of H. M. Geological Survey.

The two jaws which were the subject of this communication form part of the collection of fossils from the Lower Greensand of New Zealand deposited in the British Museum by Dr. Hector. One of the specimens, a right mandible, was referred by the author to *Ischyodus brevirostris*, Ag., a species from the Gault of Folkestone, hitherto known only by name, no description or figure of it having been as yet published. Through the kindness of the Earl of Enniskillen, the original type specimen of this species was exhibited to the Society. The author then described a perfect mandible from the Cambridge phosphatic deposits, and stated that the examination of a large series of specimens showed a considerable variation in the form of the teeth in different individuals. The New-Zealand mandible was then compared with these British specimens, and was said to differ less from some of them than they did among themselves.

The second specimen, a small right maxilla, possessing but one

tooth, and this of a peculiar form, was compared with the corresponding bone in *Ischyodus*, *Edaphodon*, *Elasmodus*, *Ganodus*, *Chimæra*, and *Callorhynchus*. The form of the tooth appeared to agree better with that of the last-named genus than with any of the others; and the author therefore proposed to call it, in allusion to the form of the tooth, *Callorhynchus Hectori*.

"On a Bone-bed in the Lower Coal-measures, with an enumeration of the Fish-remains of which it is principally composed." By J. W. Davis, Esq., F.L.S., F.G.S.

In this paper the author described a thin bed composed chiefly of remains of fishes, which rests immediately upon the "Better-bed Coal" of the Lower Coal-measures in Yorkshire. The bed varies from a quarter to five eighths of an inch in thickness, and is overlain by a thick bed of blue argillaceous shale, containing remains of plants. The author described the order of the deposits both above and below the "Bone-bed," and gave a list of the organisms of which remains are found in the latter, including species of *Gyracanthus*, *Ctenacanthus*, *Lepracanthus*, *Acanthodes*, *Pleuracanthus*, *Orthacanthus*, *Diplodus*, *Pleurodus*, *Helodus*, *Cladodus*, *Pœcilodus*, *Petalodus*, *Harpacodus*, *Ctenoptychius*, *Megalichthys*, *Holoptychius*, *Strepsodus*, *Acrolepis*, *Platysomus*, *Acanthodopsis*, *Amphicentrum*, *Rhizodopsis*, *Cycloptychius*, *Gyrolepis*, *Palœoniscus*, *Cœlacanthus*, and *Ctenodus*. The author also described spines which he regarded as indicating two new genera of Elasmobranchs—one probably allied to *Pleuracanthus*, and the other (*Hoplonchus*) allied to *Onchus* and *Homacanthus*. Bones belonging to the Labyrinthodont genus *Loxomma* are met with rarely in the deposit.

"Note on a Species of Foraminifera from the Carboniferous formation of Sumatra." By M. Jules Huguenin.

The author described some globular Foraminifera, belonging or allied to *Fusulina*, from a Carboniferous deposit containing *Producti* and *Phillipsiæ*, which occurs N.E. of Padang and S. of the Lake of Singkarak in Sumatra. The author described the structure of these fossils, which he compared with *Fusulina cylindrica* and *F. depressa*, and arrived at the conclusion that they belong to a new genus, to which perhaps the North-American *Fusulina robusta* also belongs.

June 21, 1876.—Prof. P. Martin Duncan, M.B., F.R.S., President, in the Chair.

"On the Discovery of Plants in the Lower Old Red Sandstone of the Neighbourhood of Callander." By R. L. Jack, Esq., F.G.S., and R. Etheridge, Jun., Esq., F.G.S.

The authors give an abstract of the various previous references to the existence of remains of land-plants in deposits of Old-Red-

Sandstone age, and mention the following localities in Scotland in which such remains have recently been discovered by them:— 1. Buchanan-Castle Quarry, near Drymen; 2. Old Quarry, at small reservoir at Kilmahew; 3. Green Burn, Keltie Water; 4. Keltie Water, above Chapelrock; 5. Keltie Water, below Brackland Linns; 6. Quarry at Kames Farm, near Callander; 7. Quarry at Easterhill, near Gartmore; 8. Quarry in Cameron plantation, near Alexandria; 9. Turnpike road at Overballoch, Loch Lomond; and the localities from which the specimens noticed in this paper were obtained, namely a quarry 2½ miles from Braendam House, and the south-west corner of Muir plantation, near Callander. The plant-remains are described as being of a very fragmentary nature, and as occurring in the two last-named localities in a deposit consisting of greenish-grey flags and thin-bedded sandstones about 500 feet in thickness, the best specimens being in the sandstone. They present the appearance of elongated flattened stems, about 1 inch wide on the average, sometimes represented only by casts, sometimes by black carbonaceous films. They are ornamented with a series of pucker-like depressions when seen from the interior, or with a number of wart-like eminences when viewed externally. The latter are the scars of the points of issue of the vascular bundles passing to the leaves. Along the margins are seen spines or thorn-like projections, which may be the leaves or their bases; these are apparently arranged in spiral rows. Some stems appear to show dichotomous branching. The authors discuss the relationships of these remains with other described Devonian forms, and regard them as most nearly allied to *Psilophyton princeps*, Dawson. They describe the plant with doubt as a species of *Psilophyton*.

"On an adherent Form of *Productus* and a small *Spiriferina* from the Lower Carboniferous Limestone Group of the East of Scotland." By R. Etheridge, Jun., Esq., F.G.S.

The author commenced by summarizing the different views that have been expressed by writers as to the mode of life of the *Producti*, and the function to be ascribed to the spines with which their shells are furnished, in order to show the uncertainty that prevails upon these points. He then described specimens of a small *Productus* found attached to encrinite stems and fragments of Polyzoa, in the shale over the No. 2 Limestone of the Lower Carboniferous Limestone group, chiefly in the neighbourhood of Dunbar. The shells are attached by having some of the spines of the ventral valve wound tightly round the bodies to which they adhere, sometimes singly, sometimes in clusters, the number of spines implicated in the adhesion varying from two to seven or more. The attachment took place during the life of the Crinoid, as evinced by the subsequent growth of the latter, leading in many cases to the more or less complete imbedding of the *Productus*. From the consideration of the characters presented by the more mature valves, the author stated that the nearest affinity of this species of *Productus* appears to be with *P. Wrightii*, Dav., but that it shows peculiarities

allying it to *P. longispinus*, Sow., *P. scabriculus*, Mart., and *P. undatus*, Defr. He was not prepared to describe it as a distinct species, but suggested for it the name of *Productus complectens*, in allusion to its embracing habit, in case of its proving to be distinct.

The *Spiriferina* described by the author was compared by him with *S. cristata*, Schl., var. *octoplicata*, Sow., and with *S. insculpta*, Phill., from both of which it differs in certain characters; but as only one specimen has been met with, he refrained from founding a new species upon it. The specimen is from Fullarton Quarry, near Temple, Edinburghshire.

"Notice of the Occurrence of Remains of a British fossil *Zeuglodon* (*Z. Wanklyni*, Seeley) in the Barton Clay of the Hampshire coast." By Harry Govier Seeley, Esq., F.L.S., F.G.S.

In this paper the author described the remains of a species of *Zeuglodon* obtained by the late Dr. A. Wanklyn from the Barton Cliff, consisting of a great part of the skull, about the same size as that of *Zeuglodon brachyspondylus*, Müller. The bones preserved are the maxillary, frontal, and parietal bones. The left maxillary shows the remains of five teeth in a length of rather less than seven inches, the first two of which had simple conical crowns and a single fang; the sockets of these are elliptical. The third tooth is considerably compressed, with a sharp margin, which has four small denticles on each side of the large median denticle. The following teeth exhibit somewhat similar characters, and each possesses two fangs. A single tooth, resembling the canine of a Carnivore, was found with the specimen, and was probably one of those missing from the first sockets. The characters of the bones of the head were described in more or less detail: the frontal region is flattened, with a sharp crest continued along the parietal region, as in *Z. brachyspondylus*; but the crest is not flattened posteriorly into a narrow table, as in that species, nor is the parietal united with the frontal by a folded suture. The species, named *Z. Wanklyni* in memory of its discoverer, differs from all known species of the genus in the shortness of the interspaces between the teeth.

"On the Remains of *Emys hordwellensis*, from the Lower Hordwell beds in the Hordwell Cliff." By Harry Govier Seeley, Esq., F.L.S., F.G.S.

The remains described by the author consist of some fragments constituting the greater part of the plastron and carapace of a species of *Emys* obtained from a bed in Hordwell Cliff about 20 feet below that which has yielded the chief remains of *Crocodilus Hastingsiæ*, and about 10 feet above the brackish-water Upper Bagshot beds. The preserved portion of the carapace is 9 inches long; when perfect it was probably about 12 inches long and 10 inches broad. Its distinctive characters were said to be:—the broad, short gular scute, with sinuous sutures; the subtriangular nuchal scute; the subpentagonal first vertebral scute, broader than the succeeding quadrate

vertebral scutes; and the concentric ornamentation left on the carapace and plastron by all the scutes. The author proposed for the species the name of *Emys hordwellensis*.

"On an associated Series of cervical and dorsal Vertebræ of *Polyptychodon* from the Cambridge Upper Greensand." By Harry Govier Seeley, Esq., F.L.S., F.G.S.

The author remarked upon the rarity of vertebræ of *Polyptychodon* in the Cambridge Greensand in comparison with the abundance of teeth, and stated that those collected do not appear to be the remains of more than two individuals, probably representing two species. One series from Haslingfield was described and figured by Prof. Owen in 1860; the other, somewhat smaller series, described in the present paper, is from the Huntingdon Road. The author described in detail the structure of the atlas and axis and of the five succeeding (cervical) vertebræ; nine dorsal vertebræ were also described.

"On *Crocodilus icenicus* (Seeley), a second and larger species of Crocodile from the Cambridge Upper Greensand." By Harry Govier Seeley, Esq., F.L.S., F.G.S.

In this paper the author described a cervical and a dorsal vertebra of a new species of Crocodile. The former is probably the last cervical. It is $2\frac{1}{4}$ inches long, and differs from that of existing Crocodiles in the large size of the parapophyses, the distinct anterior notch in the neural arch for the vertebral nerve, and the perfect convexity of the articular ball. The dorsal vertebra is the sixth or seventh; it measures $2\frac{1}{2}$ inches in length, and shows a depression and perfect convexity of the articular ball, which distinguish it from existing species. The animal was probably about 16 ft. long.

"On *Macrurosaurus semnus* (Seeley), a long-tailed animal with procœlous vertebræ, from the Cambridge Upper Greensand." By Harry Govier Seeley, Esq., F.L.S., F.G.S.

The author described a series of about 40 associated and nearly successive caudal vertebræ obtained from one of the deeper phosphatite workings on Coldham Common. The tail, when complete, probably included 50 vertebræ, and measured 15 feet in length. The articulations of the earlier vertebræ are procœlous; then they become nearly flat, then biconcave, and towards the end of the tail irregular. There are no chevron bones. The neural arch in the earlier part of the tail was supported on pedicles rising from the centrum, depressed and devoid of neural spine. The neural arches were of great antero-posterior extent and compressed. The author remarked that although the tail as a whole is more in accordance with the Lacertian type than with any other order of true reptiles, the combination of the procœlous character with the absence of chevron bones is

unknown to him elsewhere. He added that the metapodium described and figured by him in 1871, under the name of *Acanthopholis platypus*, may perhaps belong to the foot of *Macrurosaurus*, in which case the latter would probably indicate a modification of the Crocodilian type, and the individual to which the tail belonged would have been about 30 feet long.

December 20th, 1876.—Prof. P. Martin Duncan, M.B., F.R.S., President, in the Chair.

"On *Pharetrospongia Strahani*, a fossil Holorhaphidote Sponge from the Cambridge Coprolite Bed." By W. J. Sollas, Esq., B.A., F.G.S.

The sponge described by the author, which had been long labelled as a *Chenendopora* in the Woodwardian Museum at Cambridge, is a fossilized siliceous sponge, characterized by an irregularly reticulate fibrous skeleton, the fibres of which in the living state were composed of a number of siliceous acerate spicules, lying parallel to each other and to the sides of the fibre. These spicules are still sufficiently well preserved to be figured and measured individually, though they have undergone a pseudomorphic change, by which their original composition has been exchanged for a calcareous one. A similar replacement has occurred in the case of various species of *Manon* and *Porospongia*; and this fact is of great interest, as showing that the extinct and anomalous order of Calcispongiæ, which these fossils were supposed to indicate, has no necessary existence, since their calcareous nature is a superimposed one, and their original structure agrees completely with that of existing siliceous forms, *Pharetrospongia Strahani* itself exhibits close affinities to an undescribed sponge now living in the Australian seas.

"On the Remains of a large Crustacean, probably indicative of a new species of *Eurypterus* or allied genus (*Eurypterus? Stevensoni*), from the Lower Carboniferous series (Cement-stone group) of Berwickshire." By Robert Etheridge, jun., Esq., F.G.S.

The fragmentary Crustacean-remains described in this paper are referred by the author to a large species of *Eurypterus*. They are from a rather lower horizon in the Lower Carboniferous than that from which *Eurypterus Scouleri*, Hibbert, was obtained. The animal was probably twice the size of *E. Scouleri*. The remains consist of large scale-like markings and marginal spines which once covered the surface and bordered the head and the hinder edges of the body-segments of a gigantic Crustacean, agreeing in general characters with the same parts in *E. Scouleri*, but differing in points of detail. For the species, supposing it to be distinct, the author proposes the name of *E. Stevensoni*.

January 10th, 1877.—Prof. P. Martin Duncan, M.B., F.R.S., President, in the Chair.

"On gigantic Land-Tortoises and a small Freshwater Species from the ossiferous caverns of Malta, together with a list of the fossil Fauna, and a note on Chelonian-remains from the Rock-cavities of Gibraltar." By A. Leith Adams, Esq., M.B., F.R.S., F.G.S.

The author described three extinct species of Tortoises from the Maltese rock-cavities, one of which was of gigantic proportions, and equalled in size any of the living or extinct land Chelonians from the Indian or Pacific islands. The characteristic peculiarity in the two larger species is a greater robustness of the long bones as compared with the denizens of the Mascarene and Galapagos islands with which he had been enabled to contrast them. The largest, on that account, he had named *T. robusta*; it rivalled the gigantic *Testudo ephippium* (Günther) in size, showing affinities to it in a few minor characters. A smaller species, *T. Sprattii*, and a small *Lutremys*, not distinguishable, as far as the few remains extend, from the recent *L. europæa*, besides many fragments of shields of tortoises of various dimensions, had been obtained. These Chelonians were found in conjunction with the remains of the dwarf Elephants and other members of the remarkable fauna collected by Admiral Spratt and the author in the ossiferous rock-cavities of Zebbug, Mnaidra, Benghisa, &c. The paper contained a list of the animal-remains hitherto recorded from the Maltese fissure caverns, including three species of dwarf Elephants, two species of *Hippopotamus*, two gigantic species of *Myoxus*, a gigantic Swan, and other animal-remains, and, further, a Note on some Chelonian-remains from the rock-fissures of Gibraltar.

January 24th, 1877.—Prof. P. Martin Duncan, M.B., F.R.S., President, in the Chair.

"On British Cretaceous Patelloid Gasteropoda." By John Starkie Gardner, Esq., F.G.S.

In this paper the author commenced by a general statement as to the classification of the forms to be described in it, which he referred to the families Patellidæ, Fissurellidæ, Calyptræidæ, and Capulidæ. He noticed 30 species, which are mostly of rare occurrence; and 19 of these were described as new. Four genera were indicated as new to the Cretaceous series, and one as new to the Cretaceous in England. The new species were *Acmæa formosa* and *plana*, *Helcion Meyeri*, *Anisomyon vectis*, *Scurria calyptræiformis* and *depressa*, *Emarginula puncturella*, *divisiensis*, *ancistra*, *Meyeri*, and *unicostata*, *Puncturella antiqua*, *Calyptræa concentrica*, *Crepidula chamæformis*, *Crucibulum giganteum*, *Pileopsis neocomiensis*, *dubius*, and *Seeleyi*, and *Hipponyx Dixoni*. Most of the Patellidæ were from the Neocomian, and the majority of the Fissurellidæ from the Upper Greensand: the species of the other two families were scat-

tered through the series. The author referred to the indications of depth of deposit and other conditions furnished by these Mollusca, and also to the resemblance presented by many of them to certain bivalves common in the same rocks, which he regarded as a sort of mimicry.

"Observations on Remains of the Mammoth and other Mammals from Northern Spain." By A. Leith Adams, Esq., M.B., F.R.S., F.G.S.

The remains noticed in this paper were obtained by MM. O'Reilly and Sullivan in a cavern discovered at about 12 metres from the surface, in the valley of Udias, near Santander, by a boring made through limestone in search of calamine. They were found close to a mound of soil which had fallen down a funnel at one end of the cavity, and more or less buried in a bed of calamine which covered the floor. The cavern was evidently an enlarged joint or rock-fissure, into which the entire carcasses, or else the living animals, had been precipitated from time to time. The author had identified among these remains numerous portions, including teeth, of *Elephas primigenius*, which is important as furnishing the first instance of the occurrence of that animal in Spain. He also recorded *Bos primigenius* and *Cervus elaphus*?, and stated that MM. O'Reilly and Sullivan mention a long curved tooth which he thought might be a canine of *Hippopotamus*.

February 7th, 1877.—Prof. P. Martin Duncan, M.B., F.R.S., President, in the Chair.

"On new Species of *Belemnites* and *Salenia* from the Middle Tertiaries of South Australia." By Ralph Tate, Esq., F.G.S.

The author noticed the occurrence in deposits of supposed Miocene age in South Australia of a species of Belemnite (*Belemnites senescens*) and a *Salenia* (*S. tertiaria*). These fossils were obtained from Aldenga, twenty-six miles south of Adelaide, on the east coast of St. Vincent's Gulf, where the long series of sea-cliffs contains an assemblage of fossils identical with that of the Murray-River beds. The *Salenia* is especially interesting on account of the discovery of a living species of the genus by the naturalists of the 'Challenger.'

"On *Mauisaurus Gardneri* (Seeley), an Elasmosaurian from the base of the Gault at Folkestone." By Harry Govier Seeley, Esq., F.L.S., F.G.S.

The author described the skeleton of a great long-necked Saurian obtained by Mr. J. S. Gardner from the Gault of the cliff at Folkestone. The remains obtained included a tooth, a long series of vertebræ, some ribs, bones of the pectoral arch, the femur, and some phalanges, indicating a very large species, which the author

referred, with some doubt, to the genus *Mauisaurus* of Dr. Hector, founded upon a Saurian from the Cretaceous formation of New Zealand. He gave it the name of *Mauisaurus Gardneri* in honour of its discoverer. A small heap of pebbles was found in the neighbourhood of the ribs; and it was supposed that these had been contained in the stomach of the animal.

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## MISCELLANEOUS.

### *Note on the Femoral Brushes of the* Mantidæ.

By Prof. J. Wood-Mason.

Since the abstract * of my paper on these structures and their use was published, I have been enabled to consult M. Stål's memoir † entitled "Orthoptera quædam Africana;" and I find that I have been anticipated as to the discovery—the brushes, or rather the setulose eminences which I call brushes, being thus described in a footnote to p. 382 of the work cited:—"In latere interiore femorum anticorum *Mantodeorum* adest apicem versus prope marginem inferiorem spatium parvum leviter convexum, oblongum, dense brevissimeque setulosum." M. Stål makes no suggestion as to the possible use of the brushes to the insects; but I have ascertained ‡ that they are exclusively used for keeping the eyes and ocelli in a functional condition, and that they are present in the young when these quit the egg.

A full account of my observations and experiments on numerous living specimens belonging to several genera (*Schizocephala, Pseudomantis, Hierodula,* &c.) will be given in my paper.

Calcutta, Dec. 22, 1876.

### *On the Development of the Antennæ in the Pectinicorn* Mantidæ.

By Prof. J. Wood-Mason.

The author shows that, down to the last change of skin but one, no difference is to be detected between the two sexes of *Gongylus gongylodes*, either in the form or in the proportional length of the antennæ, which in both male and female are identically the same simple and setaceous structures, consisting of two distinct basilar segments followed by a multitude of very short and ill-defined flagellar ones, but that shortly after this event these appendages in the male begin to thicken throughout that portion of their length which in the perfect insect is bipectinated, so as eventually to acquire a compressed spindle-shaped form; that this thickening is the outward manifestation of the growth going on beneath the

* P. A. S. B., June 1876, p. 123; and this Journal, vol. xviii. p. 438.

† Œfvers. af Kongl. Svenska Vetenskaps-Akademiens Förhandl. Stockholm, 1871, no. 3, sid. 375–401.

‡ P. A. S. B., August 1876, p. 170.